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A CORRECT DEFINITION FOR ABDOMINAL HERNIA ILLUSTRATED BY TWO CASES.

*1, Strangulated Hernia through Linea Semilunaris, and 2, Intraabdominal Incarcerated Hernia.**

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When we meet a rare form of hernia such as an intraabdominal, properitoneal, or ileocolic hernia the usual definition given to denote the existence of a hernia is not correct.

Authors of reputation and experience define hernia as a protrusion from a cavity of any of its natural contents; as hernia of the brain from the cranial cavity, of the lung from the cavity of the chest, or of any of the inclosed viscera of the abdominal cavity.

It is asserted that abdominal hernia occurs at some point in the muscular wall that is weakened by the transmission of nerves and blood vessels, or at muscular parts that have been stabbed, incised, or lacerated, or at points congenitally defective or acquired paralysis of the resisting muscles.

The gradual stretching of tissue and the escape of the abdominal contents in a congenital or acquired sac from the peritonæum constitute the usual hernia.

In a rare form of hernia which I cite below there existed either a congenital or acquired pouch from

*Cases reported at the meeting of the Surgical Society of Brooklyn, N. Y., on January 7, 1909.

the peritonæum within the abdominal cavity. The muscular fibres and usual weak spots of the abdominal wall had offered sufficient resistance from allowing the hernial mass to pass through with the result of the formation of a hernia within the abdominal cavity. A correct definition for abdominal hernia would, therefore, be the escape of the abdominal contents in a congenital or acquired sac of peritonæum which is within the abdominal cavity or has passed through some point of its muscular wall.

A definition which covers very clearly the possible existence of a nonprotruding abdominal hernia will bring to students and operators true interpretation of certain subjective symptoms such as an impulse during coughing or sneezing at definite points of the abdominal wall, when no bulging of the part is visible.

The first case is a report of a strangulated hernia through the linea semilunaris to which the book definition for hernia is applicable, while the second case being one of incarcerated intraabdominal hernia suggests a complete definition for all forms of abdominal hernia.

Case I.—Mrs. H., sixty-two years of age, white, housewife, previously healthy, was admitted to the Jewish Hospital on November 21, 1908. She stated that she had recurring abdominal pain, vomiting and obstinate constipation.

Previous history: She had always been in good health. Had given birth to eleven children. Menopause set in eleven years ago.

For the last fourteen years she felt a mass in her abdomen, at a point about the middle third and outer border of the right rectus muscle. At times this mass was smaller, and on several occasions it almost entirely disappeared after twenty-four hours of rest in bed, together with applications of hot water bottles. Her general health remained good.

Three days before entering the hospital she became nauseated and vomited a few times. Her bowels did not move, and she had some pain over the tumor. Several physicians

were called in, who, after trying taxis without success pronounced the case one of fatty growth. The following day she vomited again, and the pain in the mass became more severe and the distention also increased. When admitted to the hospital the bowels acted as a result of a high enema of soap suds, the pain diminished, and she felt much relieved. She had not vomited twenty-four hours before admission.

I saw her half an hour before the operation, for the first time. She appeared to rest in bed very comfortable, temperature, 99° F.; pulse, 86; respiration, 20. Urine negative; blood examination leucocytosis 15400; polymorpholeucocytes, 71; small monoleucocytes, 29.

The abdomen was somewhat uniformly distended, pendulous, and loaded with fat, rendering accurate palpation very difficult. A mass about the size of an orange could be made out in the middle third of the linea semilunaris on the right side. This mass was soft, not movable, somewhat painful. Diagnosis: Strangulated hernia.

Operation: The abdomen was opened by a three inch incision directly over the tumor. The omentum appeared as an irregular lobulated mass somewhat congested and formed the greatest part of the bulging. On opening the same I found a knuckle of small intestine quite dark in color, but it had not lost its lustre and improved on washing with warm salt solution, after a division of the constriction. The ring through which the loop of gut passed was about the size of a ten cent piece. I ligated and excised the sac and omentum, after reducing the protruded coil, and closed the abdominal wall with three layers of sutures. The patient made an uneventful recovery.

Remarks.—Hernia in the linea semilunaris does not always penetrate the abdominal wall and often forms no manifest swelling. The majority of these herniæ are close to the pubes and are termed direct herniæ. Protrusion up to or through the skin above the level of a direct hernia is not frequent.

Macready in his treatise on ruptures states that out of twenty-three cases of hernia in the linea semilunaris only four were observed above the level of the umbilicus. Both sexes are affected nearly equally, and on the left side more commonly than on the right.

When, as in my case, no definite cause for its existence can be found, such as injury or suppuration, we must conclude that it is the result of some congenital defect or acquired paralysis of that region.

Case II.—On August 1, 1908, I was called by a physician to see his father in law, whom I was told was suffering from an attack of appendicitis.

The patient, J. W., was fifty-five years old, well preserved and weighed 220 pounds. While attending his business as wool merchant four days prior to the date of my visit, he experienced a severe pain in the right iliac region, particularly in the region of the appendix. The pain was very severe so that he was obliged to be in bed and keep the right leg drawn up. He vomited several times and was constipated.

Previous History.—For the last ten years, he had suffered from some discomfort in the abdomen. Three years ago the discomfort increased with occasional attacks of pain in the lower right quadrant of the abdomen. He followed advice given to him at the time and put on a truss which he wore ever since.

During one of his uncomfortable attacks about six months ago he called at my office, and requested me to examine him and tell him whether or not he had a rupture. After a most careful examination I failed to find evidences of an existing hernia. There was no bulging of any part of the abdomen. The external ring was not abnormally enlarged. His statement of an impulse in the right inguinal region during coughing and sneezing was considered a weakened abdominal resistance. He had no other sensations, no digestive disturbances. Regular movements of the bowels.

When I saw him this time he was in bed, complained of pain in the right iliac region and a feling of fulness in the abdomen. On inspection I found the abdomen very much distended, innumerable small dilated veins beneath the skin gave the whole surface a bluish tinge. There were marked tenderness and more or less rigidity of the muscles in the region of the appendix and downwards to the pubic bone. By the rectum I felt a resisting mass. The liver dullness extended about an inch and a half below the ribs.

He had a chronic bronchitis. I advised the patient to go to the hospital, but he positively refused. Two days after this I was again called and found that the pain and tenderness in the right iliac region had increased. By this time I

could feel a mass or swelling of some kind about the head of the cæcum. The report of his blood count made in a laboratory stated 15,200 leucocytes. Next day, August 4, 1908, the patient was admitted to the Jewish Hospital of Brooklyn, temperature, 101° F.; pulse, 88; respiration, 24. He complained of pain in the back and a cold on the chest. Urine: specific gravity 1.028, and a trace of albumin. Blood examination: Leucocytes, 13,800; Polymorphonuclear leucocytes, 79 per cent.; Large monophiles, 5 per cent.; small monophiles, 15 per cent.; eosinophiles, 1 per cent. An enema was given with a good fluid result.

Operation.—The abdomen was opened by an oblique incision over the appendix region. After the peritonæum was well opened there was a thin transparent additional layer of peritonæum covering which proved to be the cæcum, the lower part of the ileum and beginning of the ascending colon all of it well distended and markedly congested. The entire mass was adherent to the sac. I slowly separated all adhesions and lifted out the mass which was about the size of a fœtal head. The appendix was not visible. The color of the sac was grayish and of a fibrous nature. Certain regions showed grayish black points indicating old hæmorrhages. The outer surface of the sac was blended by adhesions to the posterior and lower wall of the abdominal cavity. The hernia with its covering was immovable in its fixed position. Upon withdrawing the contained intestines the pouch tapered downward and inward to the right external ring. I closed the opening with 3 catgut sutures and replaced the mass without doing anything. The abdominal wall was closed with separate layers after inserting a cigarette drain. The wound healed by primary union. There developed, however, an ether pneumonia five hours after the operation and the patient was seen by Dr. L. Louria and Dr. H. Koplik, of New York, during the week and in spite of every effort to save him he died on the eighth day. His temperature ranged from 103 to 105° F., pulse 108 to 130, respiration 30 to 84 per minute. No autopsy was allowed.

In a limited survey of the literature I have been unable to discover any report of such a case and I therefore concluded that this case was of such rarity as well might merit its being reported to this society for discussion.

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